Data Task: FOMC Data Update

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Contents

1 Task Requirements

Use "mtg_number_date_update_2021Jul.xlsx" as baseline data

- Add columns with time of the announcement from 1) Lucca and Moench (2015) and 2) Bloomberg
- Add columns with the time of the press conference from 1) Boguth, Grégoire, and Martineau (2019) and 2) Bloomberg
- Add unscheduled announcement dates
- Add additional information (e.g. minutes release dates, etc)

2 Data

There are in total 5 data set used in this task. They are

- 4 excel files for info on announcement time, press conference time and unscheduled dates. Files are named as
  - **LM_times**: FOMC meeting dates and times from Lucca and Moench (2015)
  - **mtg_number_date_update_2021Jul.xlsx**: a previously updated data for scheduled FOMC meetings.
  - **Events_US_sel_updt**: FOMC meeting dates and times from Bloomberg
  - **daily_funds_rate_surprises_July_2008_janno**: Fund rate surprise for scheduled and unscheduled FOMC meetings
- **Federal Reserve Website**: Additional information for FOMC meetings.

I processed these data as the order described above.

3 Overview for Output Data

The output data will have 21 variables and 413 obs. The variable list is

- fomc_date
- year
- month
- day
- scheduled_fomc
- gb_date
- bb_date
- mn_date
- blb_date
- tl_book
- kuttner_date
- rb_date
- lrgmps_date
- ind_2day
- ind_pressconf
- SEPrelease
- time_mpd_lm
- time_mpd_bbg
- D_lm
- time_pc_bgm
- time_pc_bbg

The output data is saved as a Stata dta file and an Excel file. Both are named as "**fomc_time_updt_2022May**" and saved in Output Folder.

4 Processing

4.1 Announcement Time from LM

Data for announcement time from Lucca and Moench (2015) are stored in Excel file "LM_times". The data has five variables

- **FOMC_date**: Lucca and Moench (2015)'s date for FOMC announcement date

- **FOMC_time**: Lucca and Moench (2015)'s time for FOMC announcement time
- **is2day**: Indicator for whether this FOMC meeting is a 2-day meeting. (i.e. 1 for a 2-day meeting; 0 otherwise)
- **hour**: Lucca and Moench (2015)'s hour on FOMC announcement hour
- **minute**: Lucca and Moench (2015)'s minute on FOMC announcement minute

Before constructing a proper dataframe to merge it onto the baseline data, I went through the consistency between FOMC_time variable and hour + minute variables. The results show that they are the same. Then I kept the **FOMC_date** variable as identifier (renamed as **fomc_date**) and generated "**time_mpd_lm**" as FOMC announcement time used in Lucca and Moench (2015). The merged file is stored as a temporary file as "mtg_lm".

4.2 Announcement Time from Bloomberg

The data for announcement time from Bloomberg is stored in Excel file "Events_US_sel_updt". It is the identical Excel file as used in March 18 Task. I kept all the FOMC meeting dates and recorded hours and minutes in the data, and I merged them to the temporary file "mtg_lm". The merge results shows that there are 8 FOMC meetings not matching to the baseline data, and they are all unscheduled FOMC meeting. I further generate an indicator variable "**D_lm**" and a minute-time-difference variable "**tdiff**" to identify a difference between the LM time and Bloomberg time. In total, there are **43** obs recording different time between LM and Bloomberg. The minute time difference variable is defined as

$$\text{tdiff}_i = \text{Bloomberg Time}_i - \text{LM Time}_i$$

Here is the summary statistics for this variable I also produced its distribution and time series graphs to

Table 1: Statistical Results for Variable: tdiff

	Mean	Std	t-stat
tdiff	-0.197	1.987	-1.18

see its relationships, as shown in Figure 1 and 2. Merged data is stored as a temporary file "mtg_lm_bbg".

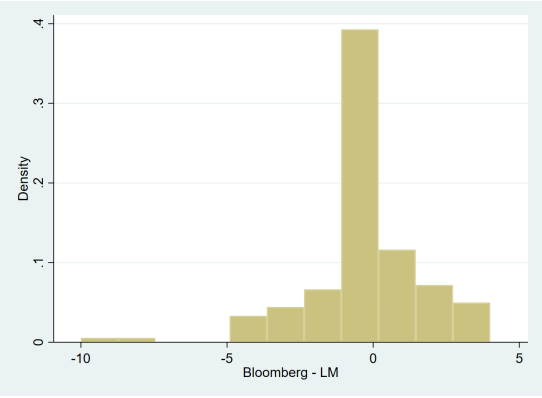

Figure 1: Time-Difference Distribution

Figure 2: Time-Difference over Date

I contacted with specialists from Bloomberg and Dow Jones to let them assist me confirm to time records shown in LM times. They scheduled a meeting on Monday, May 16.

4.3 Press Conference Time from Boguth et al. (2018)

I referred to the online appendix (Boguth et al., 2019) to add the press conference time to the data. I generated a variable named "**time_pc_bgm**" to identify the time for press conference used in Boguth et al. (2019). The result file is stored as a temporary file "mtg_lm_bbg_pc".

NOTE: However, in Boguth et al. (2019), they have one Press Conference date recorded as "Dec 16, 2016". However, the official records from Federal Reserves website and "mtg_bumber_date_update_2021Jul" dataset both record "Dec 14, 2016". Should be a typo in the paper. I corrected it in data.

Table IA.I
FOMC Announcement Calendar

This table reports the scheduled and actual time of FOMC announcements and the scheduled time for press conferences (PCs) between April 2011 and September 2017.
Source: http://www.federalreserve.gov/monetarypolicy/fomccalendars.htm and TRTH.

Date	Scheduled	Actual	PC	Date	Scheduled	Actual	PC
04/27/2011	12:30	12:32	14:15	07/30/2014	14:00	14:00	
06/22/2011	12:30	12:27	14:15	09/17/2014	14:00	14:00	14:30
08/09/2011	14:15	14:18		10/29/2014	14:00	14:00	
09/21/2011	14:15	14:23		12/17/2014	14:00	14:00	14:30
11/02/2011	12:30	12:32	14:15	01/28/2015	14:00	14:00	
12/13/2011	14:15	14:12		03/18/2015	14:00	14:00	14:30
01/25/2012	12:30	12:27	14:15	04/29/2015	14:00	14:00	
03/13/2012	14:15	14:15		06/17/2015	14:00	14:00	14:30
04/25/2012	12:30	12:32	14:15	07/29/2015	14:00	14:00	
06/20/2012	12:30	12:32	14:15	09/17/2015	14:00	14:00	14:30
08/01/2012	14:15	14:13		10/28/2015	14:00	14:00	
09/13/2012	12:30	12:31	14:15	12/16/2015	14:00	14:00	14:30
10/24/2012	14:15	14:15		01/27/2016	14:00	14:00	
12/12/2012	12:30	12:30	14:15	03/16/2016	14:00	14:00	14:30
01/30/2013	14:15	14:15		04/27/2016	14:00	14:00	
03/20/2013	14:00	14:00	14:30	06/15/2016	14:00	14:00	14:30
05/01/2013	14:00	14:00		07/27/2016	14:00	14:00	
06/19/2013	14:00	14:00	14:30	09/21/2016	14:00	14:00	14:30
07/31/2013	14:00	14:00		11/09/2016	14:00	14:00	
09/18/2013	14:00	14:00	14:30	12/16/2016	14:00	14:00	14:30
10/30/2013	14:00	14:00		02/01/2017	14:00	14:00	

Figure 3: From Boguth et al. (2018)

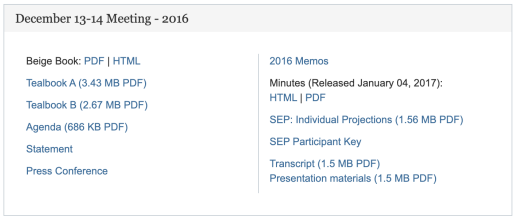

Figure 4: From Federal Reserve Website

4.4 Press Conference Time from Bloomberg

I used the Excel file "Events_US_sel_updt" and kept only the press conference time. Results are merged to the previous dataset. The merged result is stored as a temporary file "mtg_lm_bbg_pc_pcbbg".

NOTE: However, I found a typo in the Bloomberg data. For FOMC Press Conference, it records "Mar 17 2022" instead of correct one "Mar 16 2022". I corrected it in data.

2022/1/26 14:30	NY	2022	1	26	14	30	US			1	Fed Chair Powell Holds Press Conference Following FOMC Meeti
2022/3/16 14:00	NY	2022	3	16	14	0	US	1			FOMC Rate Decision
2022/3/17 14:30	NY	2022	3	17	14	30	US			1	Fed Chair Holds Press Conference Following FOMC Meeting
2022/5/4 14:00	NY	2022	5	4	14	0	US	1			FOMC Rate Decision

Figure 5: From Bloomberg

Figure 6: From Federal Reserve Website

4.5 Unscheduled Meeting Pre 2008

The Excel file "daily_funds_rate_surprises_July_2008_janno" has records on the unscheduled FOMC meetings. I kept only those unscheduled meeting according to the indicator variable "ScheduledFOMCmeeting"

and merged the results to the data. I created an indicator variable "**flag**" to indicator whether a FOMC meeting is unscheduled or not (i.e. 0 for unscheduled and 1 for scheduled).

I also updated the "**ind_2day**" variable, which is an indicator to whether this FOMC meeting is a 2-day or not (I coded 1 for a two-day meeting, 0 for one-day meeting, and -1 for a three-day meeting).

NOTE: However, I found some of obs in "daily_funds_rate_surprises_July_2008_janno" do not match to the official records from Federal Reserve website. Specifically, there are no unscheduled meeting on

04sep1992, 09apr1992, 08mar1991, 20dec1991, 13jul1990, 29oct1990, 06nov1989

while they are shown in the Excel file.

Additionally, I also noticed that the Excel file assigns the meeting on Oct 16, 1989 as an unscheduled meeting. I looked up its transcript and found there is no change in rate in the announcement. Also, it has two meetings in succession (Oct 16 to Oct 18), and the transcript says the meeting is adjourned the next day. So I coded the "**ind_2day**" for FOMC meeting on Oct 16, 1989 as -1.

4.6 Unscheduled Meeting Post 2008

For the post-2008 unscheduled meeting, I manually added them up since there are many unscheduled after 2008. In total, I appended 3 meetings to the data.

4.7 Additional Information

The add-on list of additional information on FOMC meeting is as follow

- **mn_date**: minutes release date
- **ind_pressconf**: indicator for Press Conference (1 = press conference; 0 = no press conference)
- **SEPrelease**: indicator for Statement of Economic Projections
- **tb_book**: indicator for Tealbook
- **rb_date**: Redbook release date
- **lrgmps_date**: Statement on Longer-Run Goals and Monetary Policy Strategy release date

I also updated the latest May 2022 FOMC meeting information from Bloomberg.

NOTE: There is no Bluebook and Greenbook records after Apr 2010 from Federal Reserve website. I still keep them in case there is a future need.

Also, I found the official documentation for Redbook saying the book is released before the meeting. However, I noticed the Redbook for Oct 06 1979 FOMC meeting is released after the meeting.

5 My Thoughts to Time Difference

I think the difference comes from the different indicator for the FOMC announcement time. For Bloomberg's time, it strictly follows the time of the FOMC official announcement. However, for Lucca and Moench (2015), I looked back to its cited paper–Fleming and Piazzesi (2005)–where I quote "Announcement times are the earliest times a Bloomberg or Dow Jones headline or story appeared with information about a rate change (or lack thereof) after a scheduled FOMC meeting or inter-meeting rate change". Therefore, the latter one is more like a search on internet about the latest news rather than official announcement. Although this method could be a special case from the informed trading as proposed by Hendershott, Livdan, and Schürhoff (2015), they study the informed trading by looking at trading volume 10 days before the announcement date. However, in this case, the difference is only at minute level. Could extend it to the heterogeneous behaviors between informed and uninformed trader. I think the informed trading may be used to predict the stock return within minutes after the stock market opens. I foresaw the difficulties are 1) requiring more frequent data; and 2) micro noise.

References

Boguth, O., Grégoire, V., & Martineau, C. (2019). Shaping expectations and coordinating attention: The unintended consequences of fomc press conferences. *Journal of Financial and Quantitative Analysis*, *54*(6), 2327–2353.

Fleming, M. J., & Piazzesi, M. (2005). Monetary policy tick-by-tick. *Unpublished paper, August*.

Hendershott, T., Livdan, D., & Schürhoff, N. (2015). Are institutions informed about news? *Journal of financial economics*, *117*(2), 249–287.

Lucca, D. O., & Moench, E. (2015). The pre-fomc announcement drift. *The Journal of finance*, *70*(1), 329–371.